

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
15 March 2001 (15.03.2001)

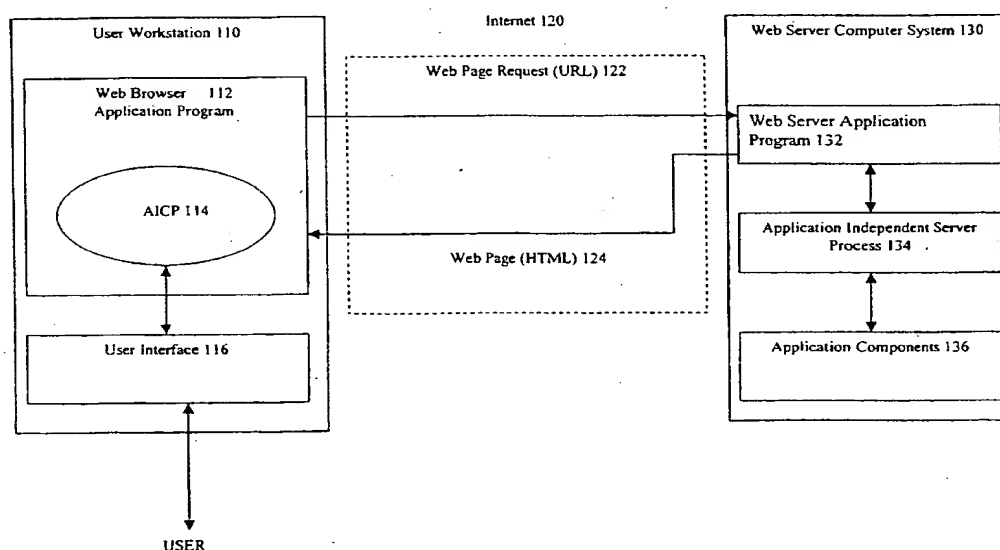
PCT

(10) International Publication Number
WO 01/18691 A3

- (51) International Patent Classification⁷: **G06F 9/44**, 9/54, 9/46
- (21) International Application Number: PCT/US00/24492
- (22) International Filing Date:
7 September 2000 (07.09.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
09/391,068 7 September 1999 (07.09.1999) US
- (71) Applicant: CITRIX SYSTEMS, INC. [US/US]: 6400 NW 6th Way, Fort Lauderdale, FL 33309 (US).
- (72) Inventors: MITCHELL, David, C.: 183 S 250 E, Orem, UT 84058 (US). WALTERS, Ben: 2080 E Evergreen Avenue, Salt Lake City, UT 84109 (US). MITCHELL, Dale: 1150 N Regent Court, Orem, UT 84057 (US).
- (74) Agent: MIRANDA, David, G.: Testa, Hurwitz & Thibault, LLP, High Street Tower, 125 High Street, Boston, MA 02110 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- (88) Date of publication of the international search report:
10 January 2002

[Continued on next page]

(54) Title: METHODS AND APPARATUS FOR EFFICIENTLY TRANSMITTING INTERACTIVE APPLICATION DATA BETWEEN A CLIENT AND SERVER USING MARKUP LANGUAGE



(57) Abstract: A method for efficiently transferring data between a client and a server includes the steps of: providing an application program; providing an application-independent client process effecting a plurality of client states; providing an application-independent server process effecting a plurality of server states; transferring data from the server process to the client process in response to an application program; and updating at least one client state in response to the transferred data. A related apparatus is also disclosed.

WO 01/18691 A3



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/24492

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F9/44 G06F9/54 G06F9/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	WO 97 28623 A (GOLAN GILAD ;ZANGVIL ARNON (IL); ZANGVIL AVNER (IL); MENTA SOFTWARE) 7 August 1997 (1997-08-07) abstract page 5, line 1 -page 3, line 30 page 8, line 5 - line 26 page 14, line 12 -page 16, line 30 --- -/--	1-3,7,8, 12-14, 18,19, 23,24, 27,31, 32,35 5,9,16, 20,25, 28,33, 35,36

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

30 May 2001

Date of mailing of the international search report

07/06/2001

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Archontopoulos, E

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/24492

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 5 537 548 A (FIN TONG-HAING ET AL) 16 July 1996 (1996-07-16) abstract column 2, line 11 - line 36 column 3, line 9 -column 5, line 33 ---	1-3,7,8, 12-14, 18,19, 23,24, 27,31, 32,35 5,9,16, 20,25, 28,33, 35,36
X A	EP 0 475 581 A (HEWLETT PACKARD CO) 18 March 1992 (1992-03-18) abstract column 2, line 20 - line 45 column 3, line 41 - line 51 column 4, line 23 -column 5, line 32 column 6, line 2 -column 7, line 8 ---	1-3,7,8, 12-14, 18,19, 23,24, 27,31, 32,35 5,9,16, 20,25, 28,33, 35,36
X A	EP 0 878 759 A (IBM) 18 November 1998 (1998-11-18) abstract column 1, line 2 - line 6 column 2, line 35 -column 4, line 30 column 9, line 54 -column 10, line 15 column 10, line 42 -column 11, line 50 -----	1-3,7,8, 12-14, 18,19, 23,24, 27,31, 32,35 5,9,16, 20,25, 28,33, 35,36

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 00/24492

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 9728623	A	07-08-1997	IL	116804 A	06-12-1998
			AU	1397097 A	22-08-1997
US 5537548	A	16-07-1996	JP	5046568 A	26-02-1993
			CA	2071451 A,C	09-02-1993
			EP	0527590 A	17-02-1993
EP 0475581	A	18-03-1992	JP	4281516 A	07-10-1992
			US	5408600 A	18-04-1995
EP 0878759	A	18-11-1998	JP	10301874 A	13-11-1998

THIS PAGE BLANK (USPTO)